

however, quite distinct from *Fusinus*. The nuclear whorls are also different from those of the majority of *Cantharus*, being subpyramidal, ornamented by fine rounded papillae, and terminated by a narrow elevated rib. It seems probable that the genus *Cantharus* should be divided into two genera.

This species has never, to the writer's knowledge, been reported living or fossil from California, nor has a figure of it ever been published. Therefore, I take this opportunity to report an extension of range and to present figures of a species heretofore unfigured.

Photographs by courtesy of the Los Angeles Museum; drawing of nuclear whorls by courtesy of Mr. A. Peterson of the Allan Hancock Foundation, The University of Southern California.

Pl. 2, fig. 6. *Cantharus lugubris* C. B. Adams, length 10.2 mm. 25 fathoms off Redondo Beach, California.

Pl. 2, fig. 7. Nuclear whorls of another specimen from Redondo Beach. Length of whorls shown 1 mm.

Pl. 2, fig. 5. *Cantharus lugubris* C. B. Adams, length 15.1 mm. Pleistocene near Playa Del Rey, Calif.

NOTES ON THE SNAIL *Humboldtiana fortis* PILSBRY

BY E. J. KOESTNER AND RICHARD A. SCHNEIDER

Our observations on the snail *Humboldtiana fortis* Pilsbry, were confined to the vicinity of Cerro Potosí, a 12,500 foot mountain near Galeana, Municipio de Galeana, Nuevo Leon, Mexico. Frequent trips between Galeana and our camp on the peak of Cerro Potosí (5,400 feet to 12,000 feet altitude) gave us opportunity to observe the presence or absence of the snail in the different types of vegetation cover represented. The extreme peak is crowned by an area of rocky alpine meadow, and is fringed by an almost pure stand of scrubby piñon pine (an undescribed species) which forms a timberline zone of varying width. Descending the mountain one finds that the scrub pine zone gives way to an open, grassy forest of *Pinus montezumae* Lindl. var. *hartwegii* Engelm. At lower altitudes mesic oak forest is encountered in ravines and sheltered valleys, while the ridges and dry valleys support a chaparral of varied composition.

The snails were abundant in the alpine meadow and scrub piñon pine zones. A few were found in the upper limits of the pine forest where the scrub piñon pine mixed with it. They were observed only once in the pure pine forest, this being near a spring at an altitude of about 10,500 feet. None were seen in the other vegetation types, or below that altitude. The species seemed to be isolated on the upper portions of this peak although its presence elsewhere under conditions of a similar character is possible.

The snails were apparently associated with the scrub piñon pine and were found to be most abundant around the base of these trees. They climbed up the trunks and occasionally out on the branches. In the alpine zone the snails were found to be abundant about rocky areas and patches of a yellow composite (*Helenium pinctorum* Standl.) where the Mexican vole, *Microtus mexicanus* (Saussure), occurred in colonies. The presence of large numbers of empty shells in such places, the side of which had apparently been broken away by the mouse, seemed to indicate that this mammal fed extensively on *Humboldtiana fortis*. It is possible that these mice had something to do with the presence of the snails in such places. Clark's nutcracker (*Nucifraga columbiana* (Wilson)) was observed perched on a lower branch of a scrub pine eating a snail.

The temperatures of that portion of the mountain where the species was observed averaged low (3° C. to 15° C.), the higher temperatures being maintained only during the short periods of actual sunshine. During much of the time the peak was covered by a cloud cap which produced rain or hail nearly every day. The hail was usually gone within a few hours after falling although it occasionally remained on the ground until the next day. Winters on the peak were reported to be severe. At lower altitudes, the country became very dry, and temperatures were high.

The generally cool and damp conditions seemed favorable to the activity of the snails and there was no limited activity period. They were observed to be moving about both during the day and at night. They were usually found under a shrub, small tree, or around some object or group of objects which offered more shelter

than the general terrain, such as an accumulation of limestone rocks or fallen logs. This habit tended to make them somewhat local in distribution. They usually occurred in groups or aggregations and were seldom found far from another individual of their kind.

Mating individuals were observed, in one case on July 5, 1938, but no obviously young or immature specimens were found.

Many snails were noted with rough and irregular parts to their shells due to regeneration of broken shells, indicating that injury must be quite frequent. They were attracted to mouse traps set for small mammals and would spring them frequently enough to be a nuisance. The traps were baited with a mixture of 1 part bacon, 1 part raisins, 2 parts oily peanut butter, with enough rolled oats to make the mixture of putty-like consistency.

The flora of the upper reaches of the peak, those inhabited by *Humboldtiana fortis*, contains a large number of endemics, and many species of the southern Rocky mountains. There is apparently little relationship with the flora of the mountains of southern Mexico.

NEW MOLLUSCA FROM FLORIDA

BY JEANNE S. SCHWENGEL

MARGINELLA JASPIDEA, n. sp. Pl. 3, fig. 12.

The shell is biconic, smooth, highly polished, spire straightly conic, with an obtusely rounded apex. It has five whorls, the outline of body whorl being concave toward the base. The aperture is nearly two-thirds the length of the shell, the lip heavily margined on the outside and irregularly denticulate within. The columella has four distinct folds, the first transverse, with the next three increasingly oblique downward. The color is jasper pink, with a slightly darker band below the suture. The juveniles are a light jasper red, with the protoconch a pure jasper red. Length 11 mm., width $5\frac{1}{2}$ mm. Length of aperture 7 mm., width of aperture $1\frac{1}{2}$ mm.

Dredged off Palm Beach, 66 fms. Type 176454 A.N.S.P.

This lovely little marginella was dredged by Thomas L. McGinty.

CRASSISPIRA PIASMA, n. sp. Pl. 3, fig. 8.

This pure white shell is fusiform, spire thick and elongate, nuclear whorls smooth and rounded. It has nine whorls, those